

## ABSTRACT OF THE DISCLOSURE

A motor includes a stator, a rotor disposed in the stator, a coil and an insulating apparatus. The coil has a main-resistance coil that is wound around an outer portion of an iron core of the stator and a sub-resistance coil that is wound around an inner portion of the iron core. The insulating apparatus prevents withstand voltage by insulating the rotor from the coil, which can expand and contact the rotor as a result of an increase in temperature during operation of the motor. The insulating apparatus includes an insulator disposed between the rotor and the coil and a yarn for securing the insulator to the coil.

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